

Integration of Network, Data Link, and Physical
Layer to Adapt Network Traffic

Tushar Ramanlal Shah
Addepalli Sateesh Kumar
Chandrasekaran Nageswara Gupta
Debaditya Mukherjee
Thomas Yat Chung Woo
Khalid Sheikh
Jai Prakash Agrawal

ABSTRACT OF THE DISCLOSURE

To provide better quality of service, Network nodes in accordance with the present invention use a media abstraction unit to integrate link-layer management with network layer traffic management. Various transmission parameters are modified in response to changing environmental factors. The modification of the transmission parameters changes the available bandwidth of the wireless link. In accordance with some embodiments of the present invention, the available bandwidth of the wireless link is used at network layer traffic management. Specifically in one embodiment of the present invention, the amount low priority data packet within a TDM data frame is altered to use the available bandwidth.